

FAA Background Information Regarding U.S. Civil Aviation – Incheon Flight Information Region (RKRR)

North Korea maintains the capability to conduct electronic warfare (EW), potentially resulting in GPS interference and disruption impacting U.S. civil aviation operations into and out of Incheon International Airport (RKSI). The last known North Korean EW operation that impacted flight operations into RKSI was in 2016. This EW event and other prior events have been reported during periods of combined U.S. and Republic of Korea military exercises and during periods of political tension on the Korean Peninsula. U.S. operators flying in the Incheon FIR (RKRR) may be exposed to GPS interference that could interfere with aircraft navigation systems. Although there have been no reported incidents in 2017 or to-date in 2018, North Korea conducted intentional GPS jamming operations in response to the annual U.S. - Republic of Korea combined military exercise in early April 2016. This 2016 activity interfered with aviation and maritime navigational systems and mobile communications in the vicinity of Incheon International Airport (RKSI).

One incident report from the 2016 interference indicated a civil aircraft experienced the loss of a GPS signal on approach to Incheon at approximately 100 nautical miles from the airport, followed by the aircraft's Internal Navigation System beginning to malfunction at approximately 50 miles from the airport. Then, on final approach, the aircraft stopped receiving terrain information. Although no equipment damage was reported, the April 2016 incident demonstrated a hazard to civil aircraft. During previous interference and disruption incidents in 2013, civil aircraft were exposed to interference during approach into RKSI, which resulted in one reported incident of an aircraft having to execute a missed approach procedure.

While GPS interference with, or disruption of, civil aviation is infrequent, North Korea has demonstrated its jamming capabilities and could employ these systems with little or no prior warning. Such activities pose a potential flight safety hazard to U.S. civil aviation. U.S. operators and airmen should be prepared to use non-GPS-dependent navigation aids in the event that aircraft encounter GPS interference or disruption.

Report any GPS interference or disruption encountered in the Incheon FIR (RKRR) to the FAA at aeo-citewatch@faa.gov or at +1 202 267-3203.

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